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# United States Patent [19]

Beutler et al.

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[54] **METHOD AND APPARATUS FOR ROUTING CONDUCTORS THROUGH A HINGE**

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[\*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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## Related U.S. Application Data

[63] Continuation of Ser. No. 437,344, May 9, 1995, abandoned.

[51] Int. Cl.<sup>6</sup> ..... **H04M 1/00**; E05C 17/64

[52] U.S. Cl. .... **379/433**; 379/434; 16/342

[58] Field of Search ..... 379/433, 434, 379/428; 485/90, 575, 128; 16/342; 361/724, 726, 638, 679, 680, 681, 682, 683; D14/137, 138, 145, 240, 248, 249

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## [57] ABSTRACT

A unique method and apparatus effectively routes conductors such as conductors on a flex strip (**402**) through a hinge of a foldable electronic device (**100**) such portable cellular radiotelephone or some other wireless communication device. In particular, a cylinder (**118**) is rotatably mounted within the hinge portion of a housing (**104**). The cylinder preferably includes a slot for receiving a distal end portion (**414**) of the flex strip which is also inserted into a slot (**310**) in the other housing (**102**) of the foldable electronic device. The method and apparatus of the present invention enables the flex strip to be routed between the two moveable housings and the housing elements to move with respect to one another without being damaged.

16 Claims, 4 Drawing Sheets

